

Title (en)  
Variable phase coupling

Title (de)  
Drehwinkel-Verstelleinheit

Title (fr)  
Déphaseur

Publication  
**EP 1030036 A3 20001004 (EN)**

Application  
**EP 00300939 A 20000207**

Priority  
GB 9903621 A 19990218

Abstract (en)  
[origin: EP1030036A2] A variable phase coupling 10 is disclosed for connecting a crankshaft of an engine to a camshaft 16. The coupling 10 comprises a drive member 14, 18 having a first set of grooves 20, a driven member 26 having a second set of grooves 28 and mounted in a fixed axial position relative to the drive member 18 and an intermediate member 30 movable axially in relation to the drive and driven members. Grooves are arranged on the same side of the intermediate member to face the grooves of both the drive member and the driven member. A first set of balls 36 is engaged in the grooves 20 of the drive member 18 and the intermediate member 30 and a second set of balls 34 is engaged in the grooves 28 of the driven member 26 and the intermediate member 30 so as to transmit torque from the drive member to the driven member through the intermediate member. At least some of the grooves are helical grooves so that the relative phase of the drive and driven members varies in dependence of the axial position of the intermediate member 30. <IMAGE>

IPC 1-7  
**F01L 1/344**

IPC 8 full level  
**F01L 1/344** (2006.01)

CPC (source: EP US)  
**F01L 1/34406** (2013.01 - EP US); **Y10T 74/2102** (2015.01 - EP US)

Citation (search report)  
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